

REMARKS

This is in response to the Office Action mailed 20 September 2005.

Claims 1-28 are pending.

Claim 1, 16 and 27 have been amended for clarity.

The Office Action indicates that claims 1-28 are anticipated by US 6,917,614 (Laubach). The Applicant submits that claims 1-28 are not anticipated by Lauvach and respectfully requests reconsideration and allowance of this application.

Claims 1-10 and 28

Claim 1 recites "a plurality of service interfaces, each of the service interfaces associated with a channel in a connection-based network;" and "a map associated with the first one of the bridge ports, the map providing a correspondence between each of the plurality of priorities and one of the service interfaces;".

The Office Action alleges that "Ethernet Controller #1" (item 310) "Video Contoller [sic] Port Card (item 2101) and "Voice Contoller [sic] Port Card (item 2103) constitute service interfaces. The Office Action also alleges that item 2702 in Figure 28 satisfies the requirement for a map in claim 1. However, claim 1 recites that the map provides a correspondence between each of the plurality of priorities and one of the service interfaces. Laubach's map 2702 fails to provide the claimed correspondence. Laubach's mapping block 2702 swaps VPI and VCI values to permit a cell having a VPI value in excess of 255 to pass through a common ATM UNI switch fabric (see col. 35, ln 62-67). Mapping block 2702 does not provide any correspondence between any priorities and any one of items 311, 2101 or 2103.

Claim 1 also recites "a forwarding system configured to read a priority of a data frame to be forwarded onto the connection-based network by way of the first one of the ports, identify a service interface which the map indicates corresponds to the read user priority and forward the data frame over the channel in the connection-based network associated with the identified service interface". The Office Action indicates that 3-port bridge (item 3309) constitutes the claimed forwarding system. However, bridge 3309 handles ethernet

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frames (see col. 38 ln. 40 to col. 39, ln. 50) and does not forward data frames over channels in a connection-based network as claimed.

The Office Action refers to col. 25, ln. 38-51. This passage discusses a queue controller (item 1018 of Fig. 10). The queue controller receives ATM cells that have already been assigned to virtual connections and enqueues the cells in the appropriate queues. There is no indication that the queues are each associated with one channel. The queues cannot be equated with the service interfaces claimed in claim 1 which are each associated with a channel.

The Office Action refers to col. 39, ln. 27-50. This passage describes a queue controller (item 3318) that has the same deficiencies as the queue controller (item 1018) discussed above.

The Office Action refers to col. 19, ln. 4-26. This passage discusses an Ethernet Root controller (item 802). Root controller (802) is said to assign a forwarding port number and VPI and VCI values (col. 19, ln. 23-4) based upon various properties of a received Ethernet frame. Root controller (802) does not appear to provide a plurality of service interfaces or to "identify a service interface which the map indicates corresponds to the read user priority" and to then "forward the data frame over the channel in the connection-based network associated with the identified service interface" as claimed in claim 1.

Therefore, Laubach fails to anticipate claim 1 or any of claims 2-10 that depend from claim 1.

Dependent claims 2-10 and 28 recite additional features that distinguish Laubach. These include the following:

- Claim 4 recites that "each of the service interfaces associated with the first one of the bridge ports is associated with a channel having the same predetermined VPI". The Office Action alleges that this feature is disclosed at col. 19, ln. 4-26 or col. 39 ln. 27-50. The Applicant's agent has carefully read these passages and cannot find any disclosure of a port associated with a plurality of service interfaces wherein the service interfaces are each associated with a channel identified by a VPI/VCI

wherein the VPI values are the same for the corresponding channels for all of the plurality of service interfaces.

- Claim 7 recites “assign a priority to the data frame based upon the correspondence provided by the map and tag the data frame with the assigned priority”. The Office Action suggests that this feature is found at col. 39, ln. 27-50. However, this passage discusses placing ATM cells in queues and not tagging data frames, as claimed. The Office Action also refers to col. 28, ln. 13-23. This passage indicates that a downstream slot structure may include a single Cell Loss Priority bit but does not disclose setting the CLP based on a correspondence indicated by a map in the context of claim 7.
- Claim 8 recites a plurality of maps “wherein the forwarding system is configured to determine a number of available channels associated with the first bridge port and to select one of the plurality of maps in the scheme based upon the number of available channels”. The Office Action indicates that this feature is disclosed at col. 35, ln. 54 to col. 36 ln. 51. This is not correct. The cited passage refers to swapping VPI and VCI values to allow ATM cells with VPI values larger than 8 bits to pass through an ATM UNI switch fabric. There is no disclosure that different maps are selected based upon a number of available channels at a port. There is no disclosure that the maps are the maps as claimed in claim 1.
- Claim 10 recites a specific correspondence of priorities to channels. The Office Action states that this correspondence can be found at col. 27 ln. 34 to col. 28 ln. 61. This is incorrect. The cited passage describes downstream and upstream slot structures which have nothing to do with the correspondence between priorities and channels and especially do not disclose the specific correspondence recited in claim 10.

Claims 1-10 and 28 are therefore all submitted to be patentably distinct from Laubach.

Claims 11-15

Claim 11 recites “a plurality of service interfaces associated with the first one of the bridge ports, each of the service interfaces capable of being associated with a channel in a connection-based network;” and “means for determining a number of the service interfaces associated with active channels in the connection-based network;” and “means for establishing a mapping between user priorities read by the means for reading priorities of data frames and the service interfaces associated with active channels in the

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connection-based network based at least in part on a number of the service interfaces associated with active channels in the connection-based network;"

The Office Action suggests that Laubach discloses "means for determining a number of the service interfaces associated with active channels in the connection-based network at col. 30, ln. 18-43. This is incorrect. The cited passage describes a DSID identification circuit (item 1761) that is located at an STU. The DSID identification circuit does not provide the claimed functions. The Office Action indicates that col. 12, ln. 16-59 or col. 39, ln. 27-50 disclose "mapping ... based on a number of the service interfaces associated with active channels. This is incorrect. The cited passages fail to disclose this feature.

For at least these reasons, claim 11 is submitted to be patentable over Laubach.

Claims 12-15 depend from claim 11. Claims 12-15 further distinguish Laubach. Claims 12 and 15 recite features similar to claims 8 and 10 which are not disclosed in the cited passages of Laubach as discussed above.

Therefore, claims 11 to 15 are submitted to patentably distinguish Laubach.

Claims 16 to 27

Claim 16 recites a method which includes "based on the user priority, assigning the frame to one of a plurality of service interfaces associated with the second bridge port, each of the service interfaces associated with a corresponding channel in a connection-based network". The Office Action cites col. 32, ln. 59 to col. 33, ln. 16 which describes how different Ethernet controllers can send signals to the same transmit channel by way of a common ATM switch fabric. This passage does not disclose an association of a specific service interface, to which frames are assigned based upon user priority, to a specific channel. This passage also does not disclose assigning frames to service interfaces based upon a user priority. Various passages in Laubach disclose assigning ethernet frames to ATM connections based upon values such as DA, SA and ETYPE (see col. 21, ln 35-40 for example). The Applicant does not see any reference to a user priority in these passages.

Claim 16 has been amended to recite "as a consequence of assigning the frame to the one of a plurality of service interfaces, delivering data of the frame to the second segment of

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the VLAN by way of the corresponding channel". Applicant submits that this feature is not disclosed by Laubach in the context of claim 16.

Therefore, claim 16 is submitted to be patentable over Laubach.

Claims 17-27 depend from claim 16 and are submitted to be patentable over Laubach for at least this reason. Further:

- Claim 19 recites a feature similar to the feature of claim 8 (discussed above) which is not disclosed by Laubach.
- Claim 20 recites a feature similar to the feature of claim 10 (discussed above) which is not disclosed by Laubach.
- Claim 21 recites "while a current mapping is in effect, determining that a next channel has become available and switching to a next mapping, wherein the next mapping differs from the current mapping only in that one or more priorities are associated with the next channel". The Office Action states that this feature is disclosed at col. 38, ln. 40-65 and col. 42, ln. 4-56. This is incorrect. The passage of col. 38 does not disclose determining that a next channel has become available. The passage of col. 42 discloses ways to implement a "QoS Knob" whereby a user can request higher quality connections. This passage does not disclose determining that a next channel has become available, as claimed in claim 21.
- Claim 22 recites "upon failure of a channel associated with one of the service interfaces, adjusting the mapping by remapping one or more priorities associated with the one of the service interfaces to one or more other ones of the service interfaces". The Office Action cites col. 36, ln. 4 to col. 37, ln. 55. However, the cited passage does not discuss failure of any channel.
- Claim 26 recites a feature similar to that of claim 7 and is submitted to distinguish Laubach.
- Claim 27 recites a map that associates "a plurality of priorities with the identified service interface". It is submitted that Laubach does not disclose such a map in the context of claim 27.


For at least these reasons, claims 20-27 are submitted to be patentable over Laubach.

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The Applicant submits that the claims, as amended, all patentably distinguish Laubach. The Applicant therefore respectfully requests reconsideration and allowance of this application.

Respectfully submitted,

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